

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL120820\
 Data File : VL036128.D
 Acq On : 9 Dec 2020 12:58
 Operator : SY/AP
 Sample : L4948-09
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SS-8B

Quant Time: Dec 10 00:30:12 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL120720AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Dec 07 16:56:49 2020
 QLast Update : Mon Dec 07 16:56:49 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	1314086	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.19	114	2648647	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.10	117	2385132	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.44	95	2040772	10.78	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	107.80%

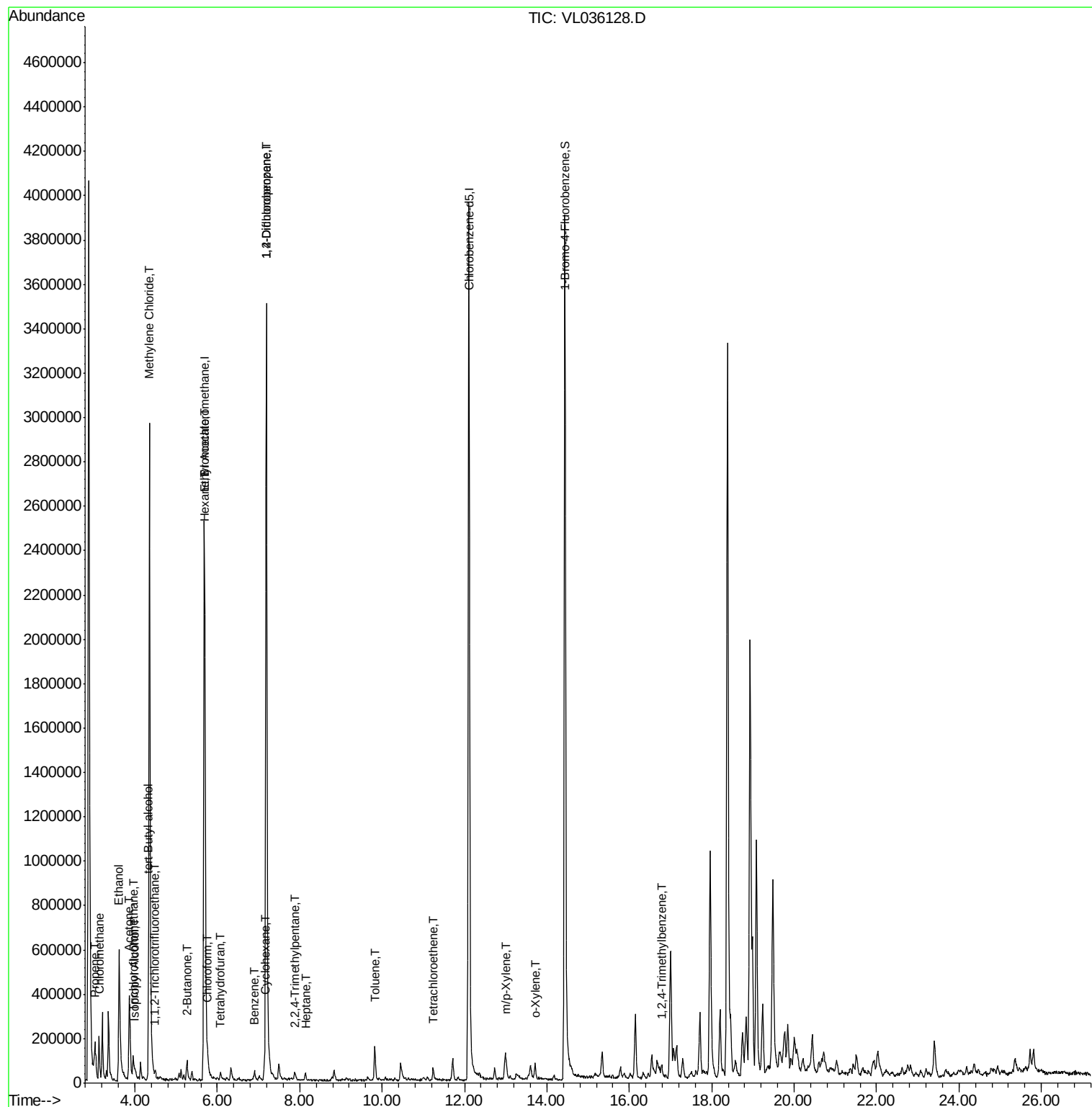
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
4) Chloromethane	3.14	50	21306	0.289	ppbv #	77
9) Propene	3.02	41	43436	0.578	ppbv	84
10) Heptane	8.14	43	7406	0.039	ppbv #	1
11) Trichlorofluoromethane	3.96	101	42443	0.236	ppbv	96
12) 1,1,2-Trichlorotrifluoroet	4.49	101	5551	0.045	ppbv #	67
13) Ethanol	3.61	45	811585	78.385	ppbv	87
15) Acetone	3.86	43	505858	3.203	ppbv	98
17) tert-Butyl alcohol	4.32	59	11387	0.074	ppbv #	71
19) Isopropyl Alcohol	3.99	45	19572	0.203	ppbv #	100
20) Methylene Chloride	4.35	84	1200287	18.546	ppbv	99
25) Ethyl Acetate	5.70	43	420992	1.334	ppbv #	79
26) Hexane	5.70	57	530240	3.734	ppbv #	40
29) Chloroform	5.76	83	33254	0.178	ppbv	84
30) Cyclohexane	7.15	84	8684	0.083	ppbv #	1
34) 2-Butanone	5.27	43	128619	0.732	ppbv	97
36) Benzene	6.90	78	28695	0.128	ppbv	93
39) 1,2-Dichloropropane	7.19	63	834222	9.411	ppbv #	24
41) Tetrahydrofuran	6.08	42	17093	0.164	ppbv #	78
44) 2,2,4-Trimethylpentane	7.87	57	14617	0.036	ppbv #	41
52) Tetrachloroethene	11.24	164	6608	0.081	ppbv #	73
53) Toluene	9.82	91	116079	0.461	ppbv	98
59) m/p-Xylene	13.01	91	19073	0.069	ppbv #	34
60) o-Xylene	13.71	91	23203	0.089	ppbv #	21
74) 1,2,4-Trimethylbenzene	16.78	105	19909	0.074	ppbv #	56

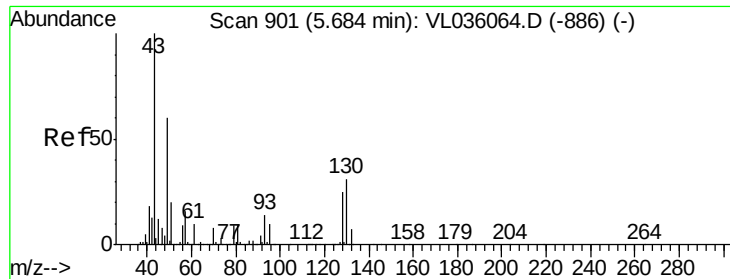
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Mon Dec 07 16:56:49 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 min Scan# 900

Delta R.T. -0.00 min

Lab File: VL036128.D

Acq: 9 Dec 2020 12:58

Instrument :

MSVOA_L

ClientSampleId :

SS-8B

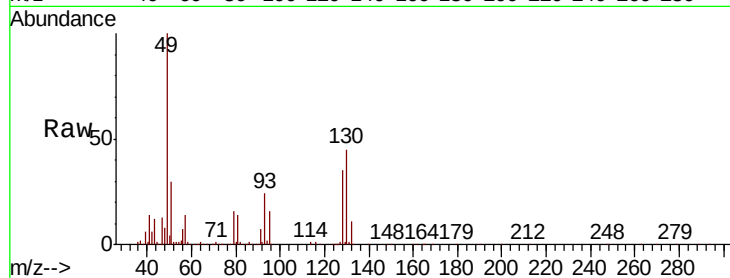
Tot Ion: 49 Resp: 1314086

Ion Ratio Lower Upper

49 100

128 36.0 21.1 63.1

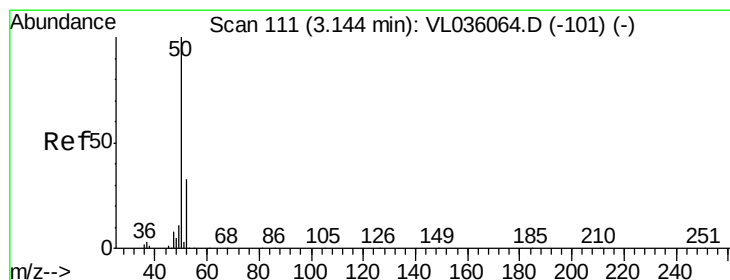
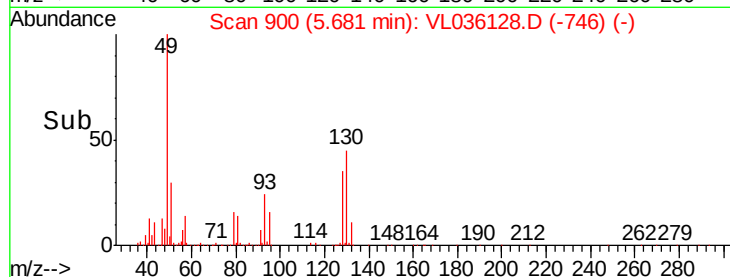
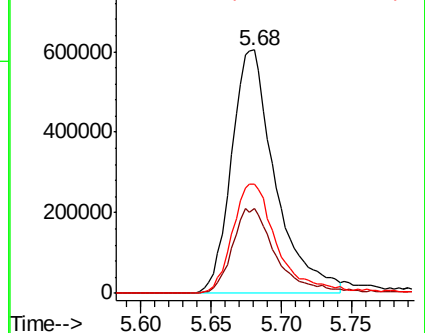
130 47.7 27.1 81.3



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#4

Chloromethane

Concen: 0.289 ppbv

RT: 3.14 min Scan# 110

Delta R.T. -0.00 min

Lab File: VL036128.D

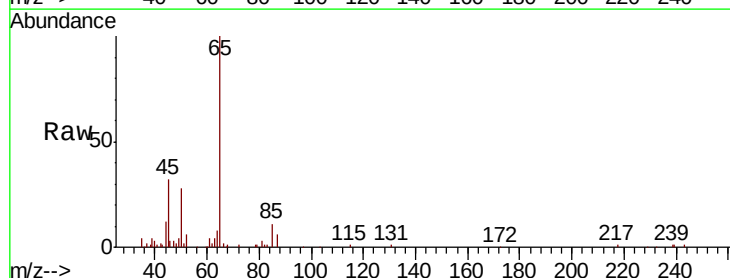
Acq: 9 Dec 2020 12:58

Tgt Ion: 50 Resp: 21306

Ion Ratio Lower Upper

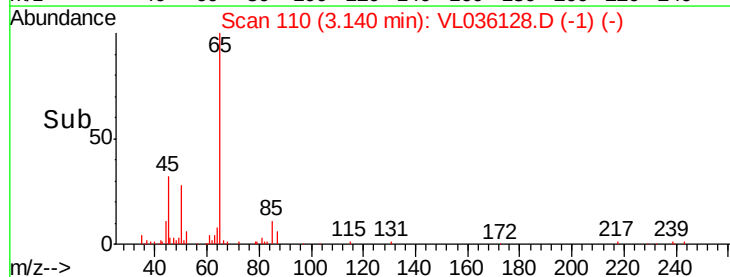
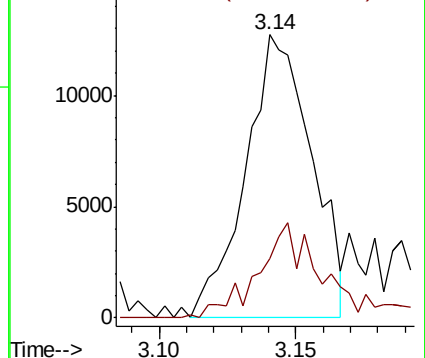
50 100

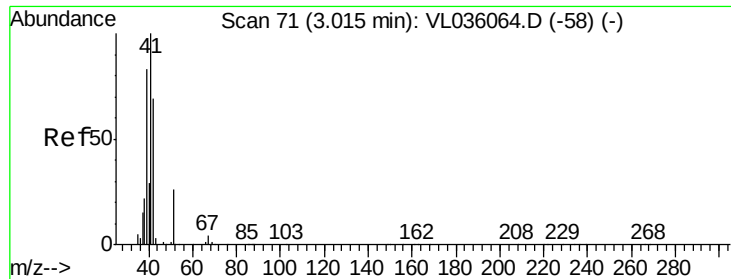
52 19.9 26.1 39.1#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.578 ppbv

RT: 3.02 min Scan# 74

Delta R.T. 0.01 min

Lab File: VL036128.D

Acq: 9 Dec 2020 12:58

Instrument :

MSVOA_L

ClientSampleId :

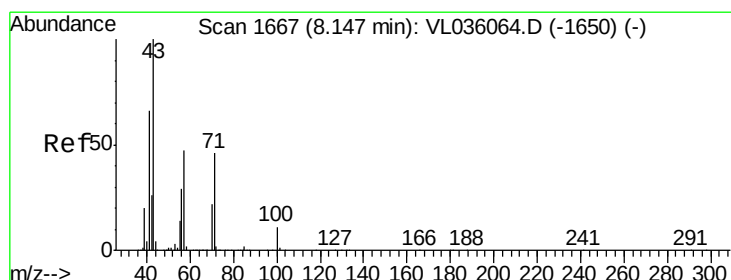
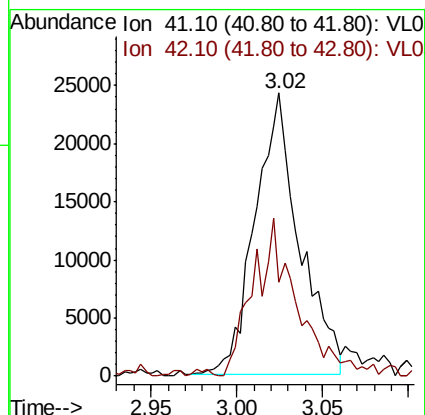
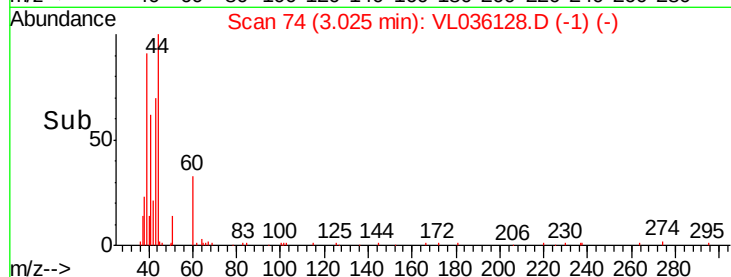
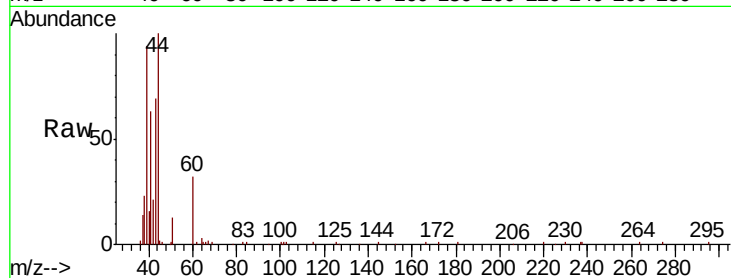
SS-8B

Tot Ion: 41 Resp: 43436

Ion Ratio Lower Upper

41 100

42 58.2 57.0 85.6



#10

Heptane

Concen: 0.039 ppbv

RT: 8.14 min Scan# 1665

Delta R.T. -0.01 min

Lab File: VL036128.D

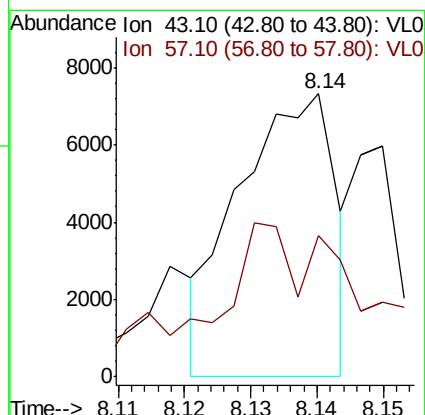
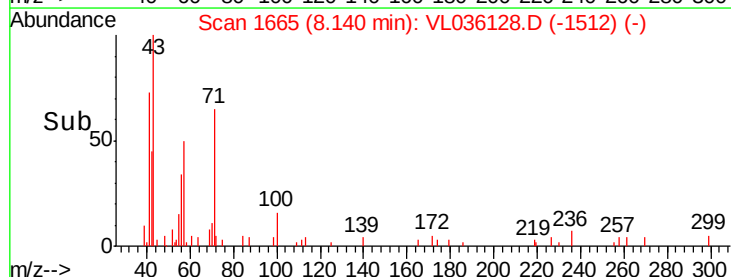
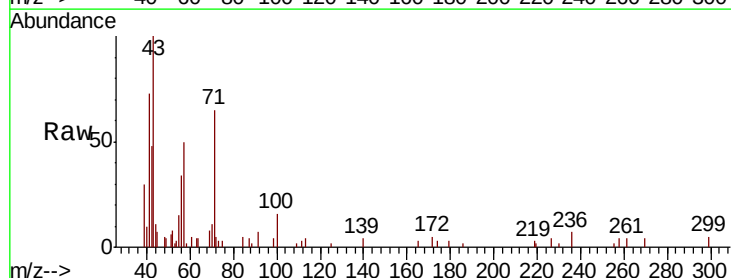
Acq: 9 Dec 2020 12:58

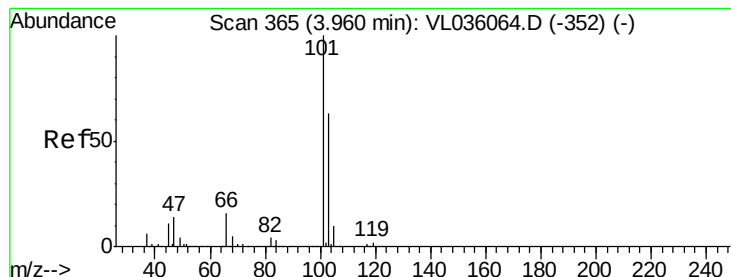
Tgt Ion: 43 Resp: 7406

Ion Ratio Lower Upper

43 100

57 115.4 37.9 56.9#





#11

Trichlorofluoromethane

Concen: 0.236 ppbv

RT: 3.96 min Scan# 364

Delta R.T. -0.00 min

Lab File: VL036128.D

Acq: 9 Dec 2020 12:58

Instrument :

MSVOA_L

ClientSampleId :

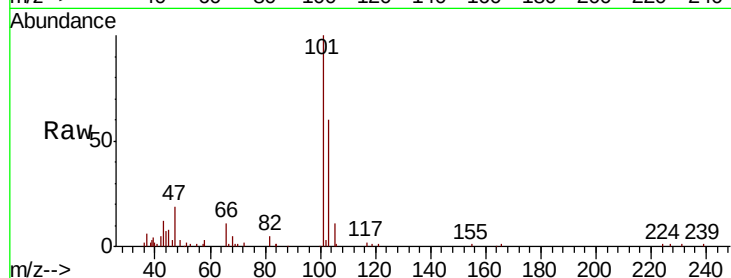
SS-8B

Tot Ion:101 Resp: 42443

Ion Ratio Lower Upper

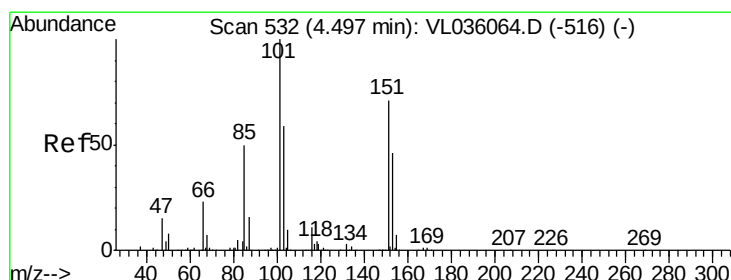
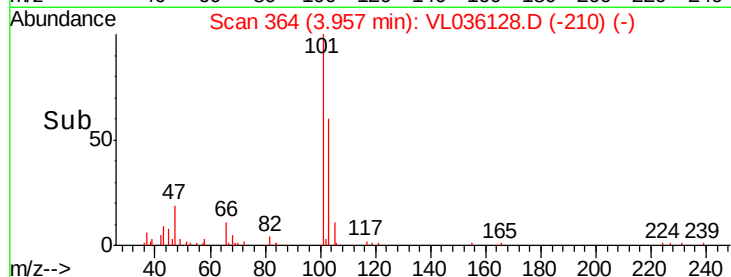
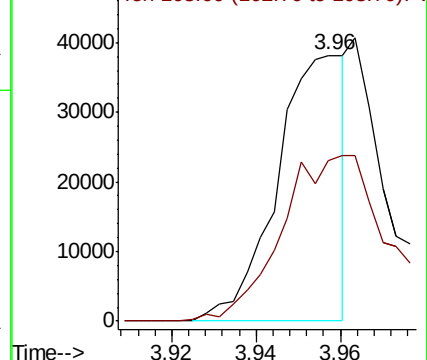
101 100

103 59.9 50.3 75.5



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.045 ppbv

RT: 4.49 min Scan# 530

Delta R.T. -0.01 min

Lab File: VL036128.D

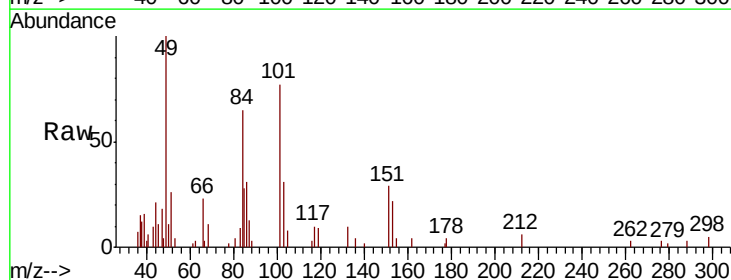
Acq: 9 Dec 2020 12:58

Tgt Ion:101 Resp: 5551

Ion Ratio Lower Upper

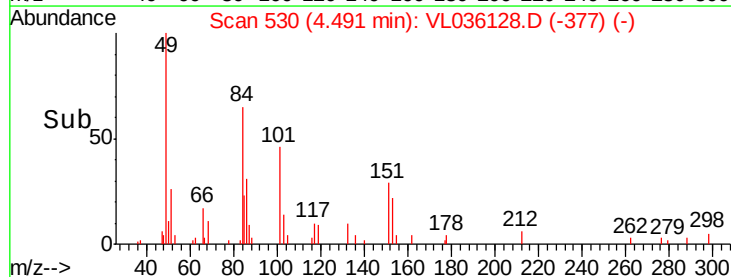
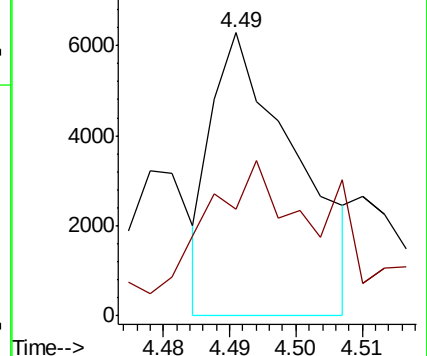
101 100

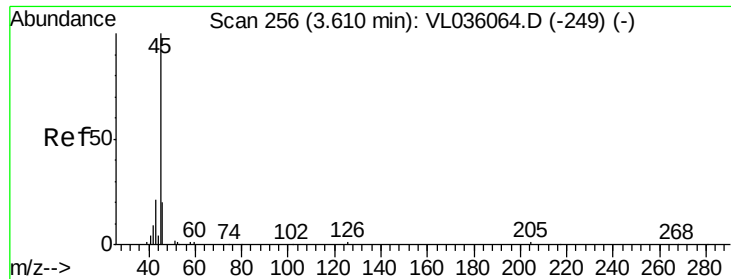
151 102.1 59.3 88.9#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 78.385 ppbv

RT: 3.61 min Scan# 257

Delta R.T. 0.00 min

Lab File: VL036128.D

Acq: 9 Dec 2020 12:58

Instrument :

MSVOA_L

ClientSampleId :

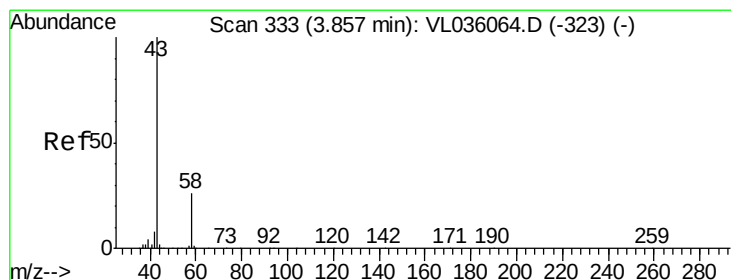
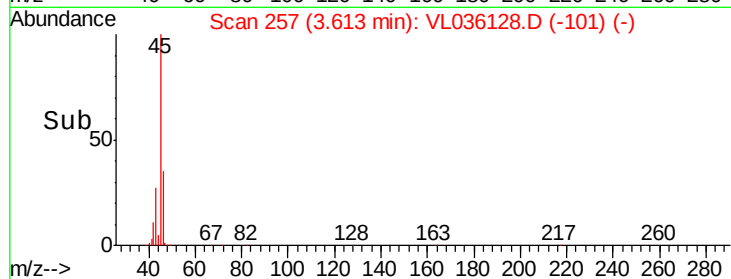
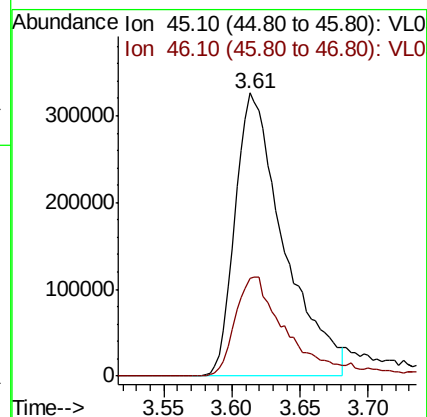
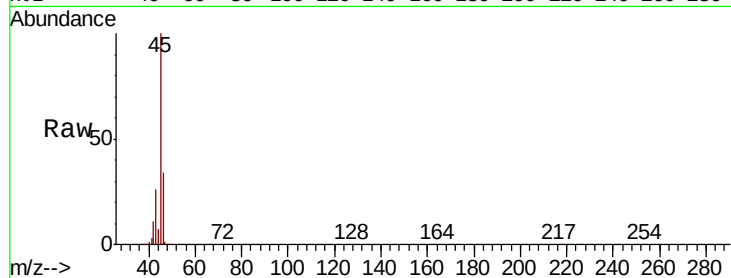
SS-8B

Tot Ion: 45 Resp: 811585

Ion Ratio Lower Upper

45 100

46 39.0 19.0 75.8



#15

Acetone

Concen: 3.203 ppbv

RT: 3.86 min Scan# 333

Delta R.T. -0.00 min

Lab File: VL036128.D

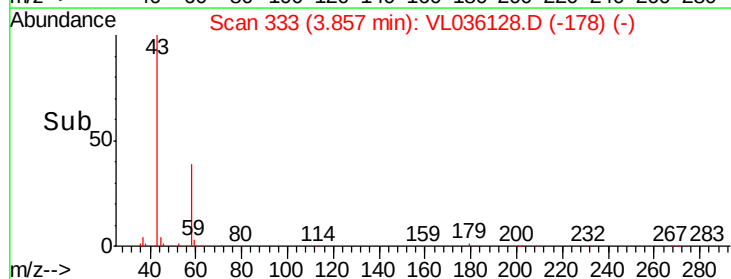
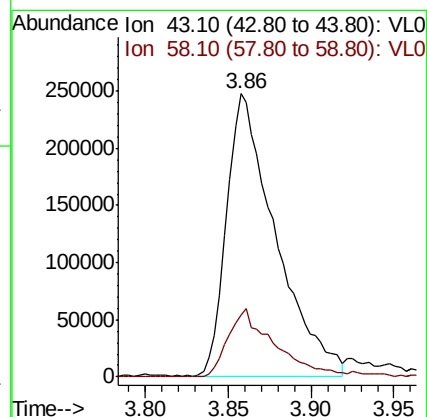
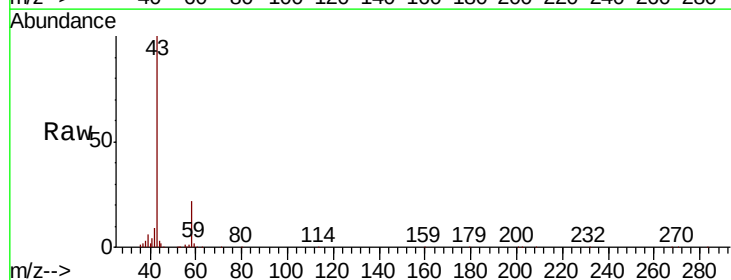
Acq: 9 Dec 2020 12:58

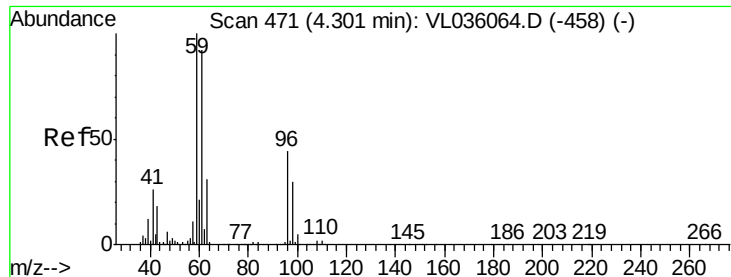
Tgt Ion: 43 Resp: 505858

Ion Ratio Lower Upper

43 100

58 25.1 20.9 31.3





#17

tert-Butyl alcohol

Concen: 0.074 ppbv

RT: 4.32 min Scan# 478

Delta R.T. 0.02 min

Lab File: VL036128.D

Acq: 9 Dec 2020 12:58

Instrument :

MSVOA_L

ClientSampleId :

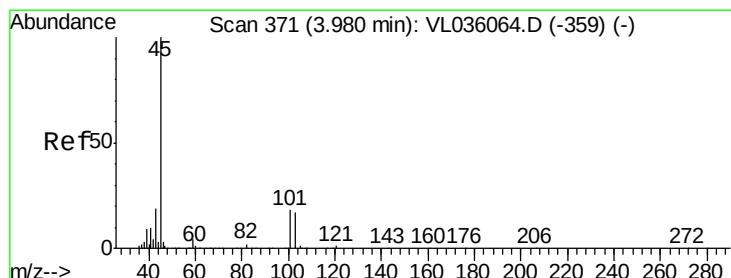
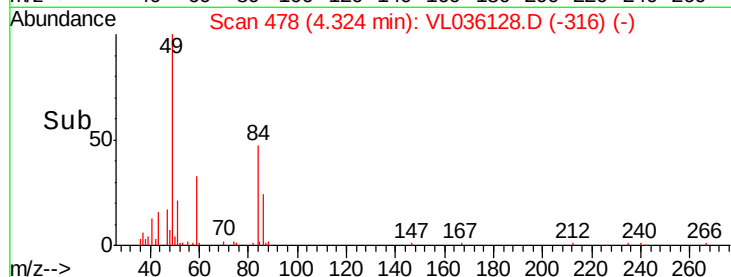
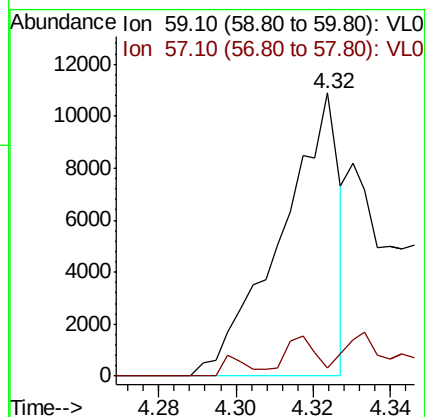
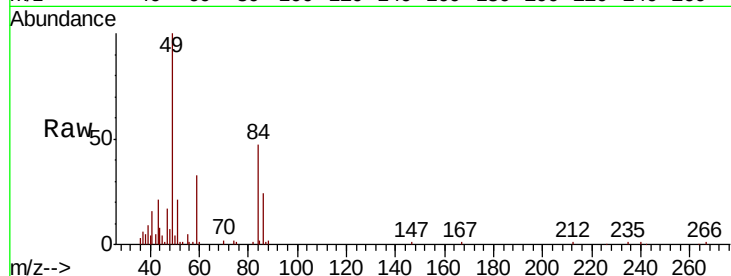
SS-8B

Tot Ion: 59 Resp: 11387

Ion Ratio Lower Upper

59 100

57 0.0 8.7 13.1#



#19

Isopropyl Alcohol

Concen: 0.203 ppbv

RT: 3.99 min Scan# 374

Delta R.T. 0.01 min

Lab File: VL036128.D

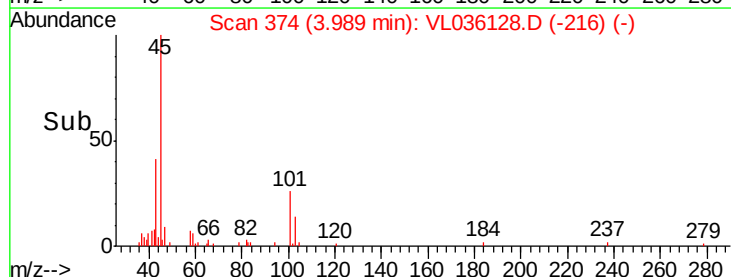
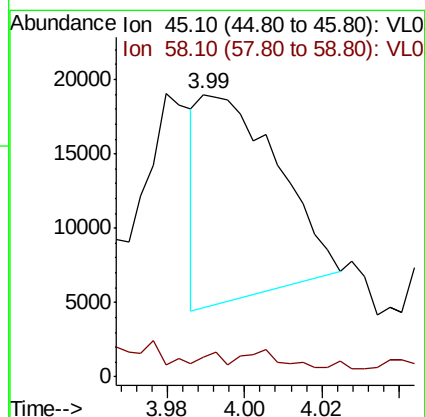
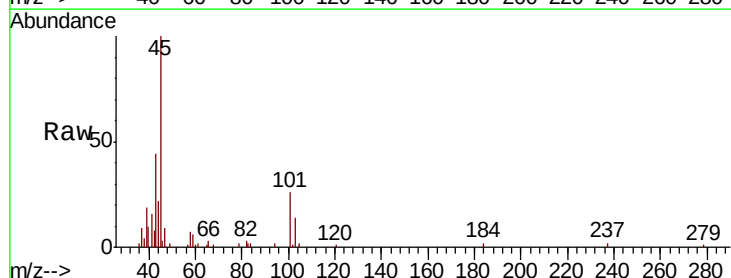
Acq: 9 Dec 2020 12:58

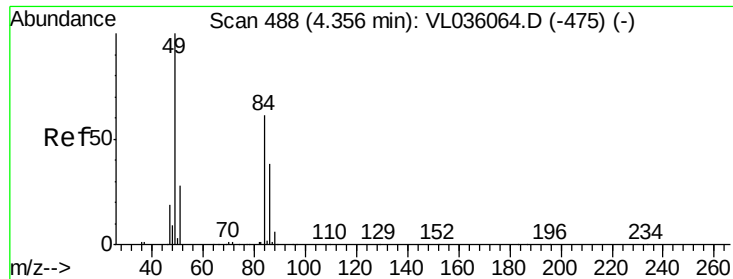
Tgt Ion: 45 Resp: 19572

Ion Ratio Lower Upper

45 100

58 0.0 0.0 0.0



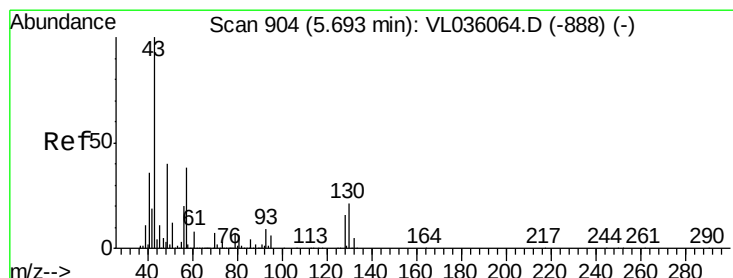
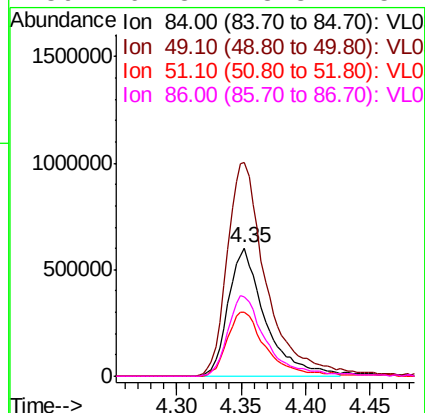
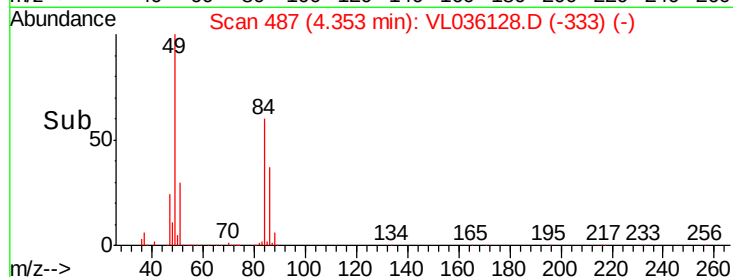
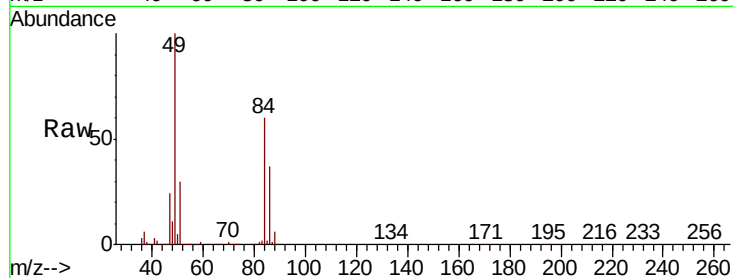


#20
Methylene Chloride
Concen: 18.546 ppbv
RT: 4.35 min Scan# 487
Delta R.T. -0.00 min
Lab File: VL036128.D
Acq: 9 Dec 2020 12:58

Instrument :
MSVOA_L
ClientSampleId :
SS-8B

Tot Ion: 84 Resp: 1200287

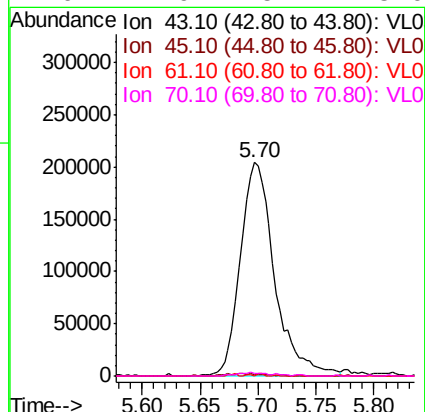
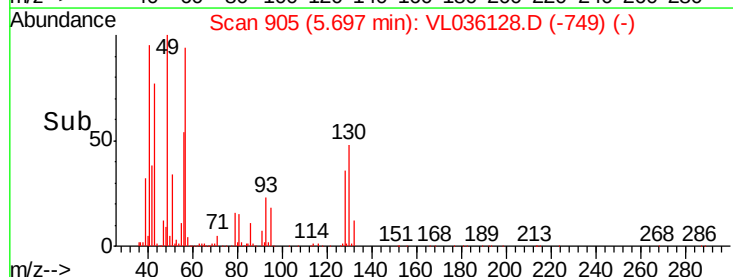
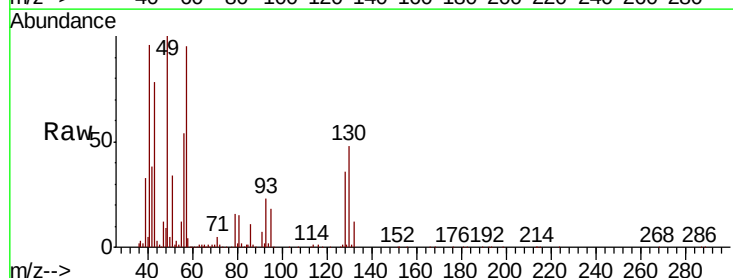
Ion	Ratio	Lower	Upper
84	100		
49	166.4	133.0	199.4
51	49.6	38.9	58.3
86	62.3	48.8	73.2

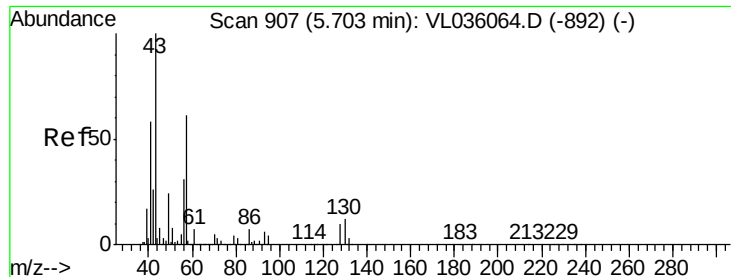


#25
Ethyl Acetate
Concen: 1.334 ppbv
RT: 5.70 min Scan# 905
Delta R.T. 0.00 min
Lab File: VL036128.D
Acq: 9 Dec 2020 12:58

Tgt Ion: 43 Resp: 420992

Ion	Ratio	Lower	Upper
43	100		
45	1.4	8.2	12.4#
61	0.9	7.4	11.2#
70	1.9	5.4	8.0#





#26

Hexane

Concen: 3.734 ppbv

RT: 5.70 min Scan# 906

Delta R.T. -0.00 min

Lab File: VL036128.D

Acq: 9 Dec 2020 12:58

Instrument :

MSVOA_L

ClientSampleId :

SS-8B

Tot Ion: 57 Resp: 530240

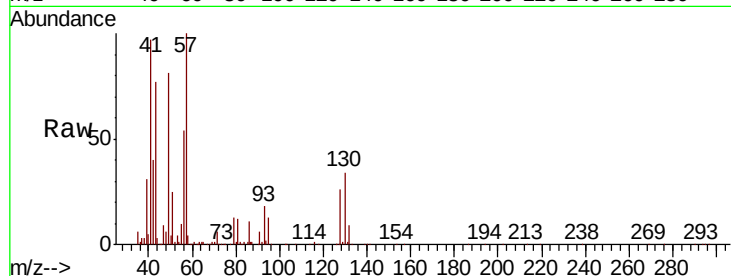
Ion Ratio Lower Upper

57 100

41 99.8 82.9 124.3

43 81.4 199.9 299.9#

56 55.3 43.1 64.7

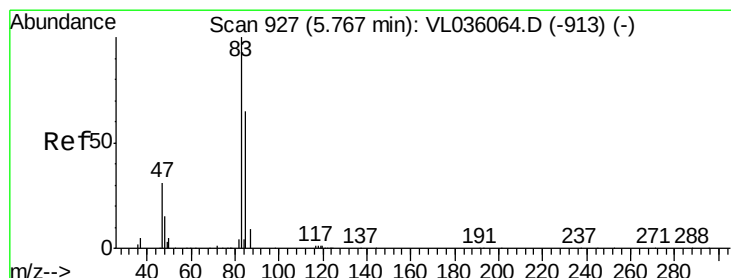
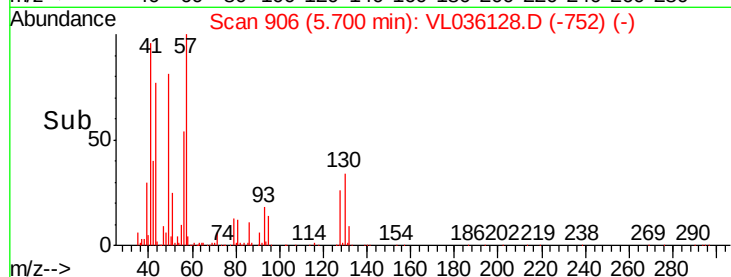
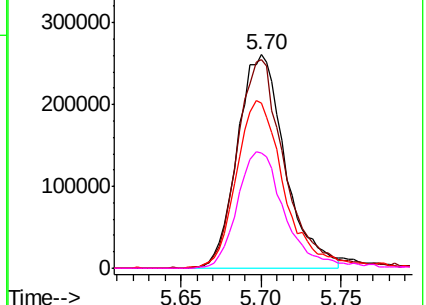


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#29

Chloroform

Concen: 0.178 ppbv

RT: 5.76 min Scan# 926

Delta R.T. -0.00 min

Lab File: VL036128.D

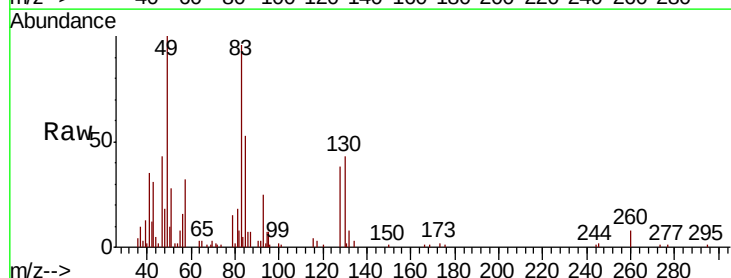
Acq: 9 Dec 2020 12:58

Tgt Ion: 83 Resp: 33254

Ion Ratio Lower Upper

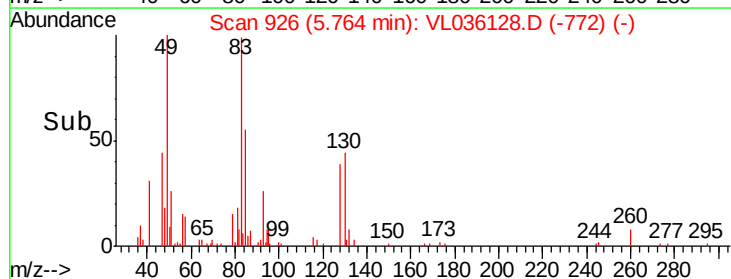
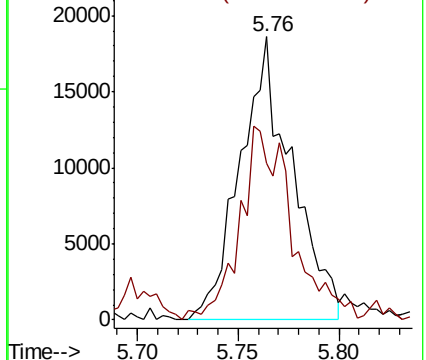
83 100

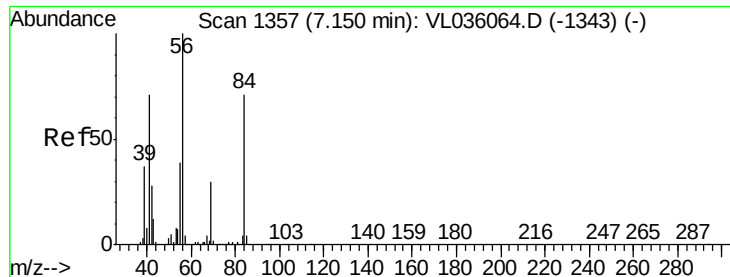
85 52.2 51.8 77.6



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

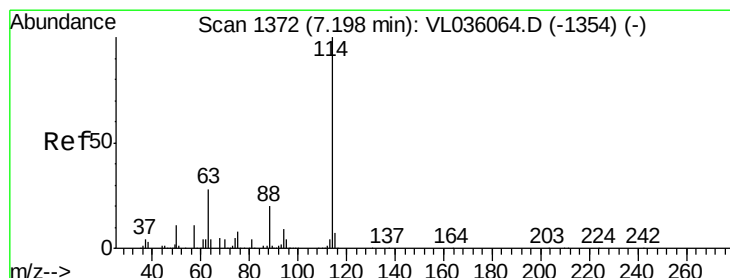
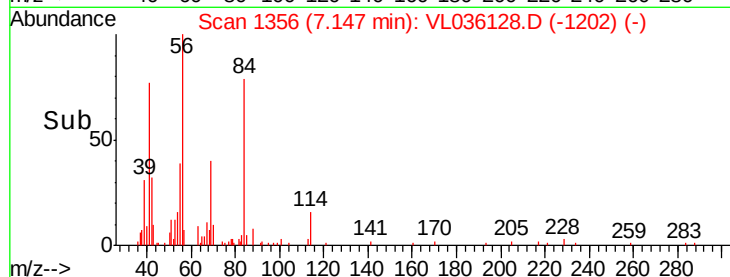
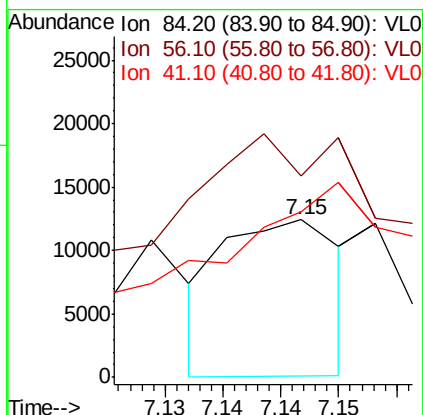
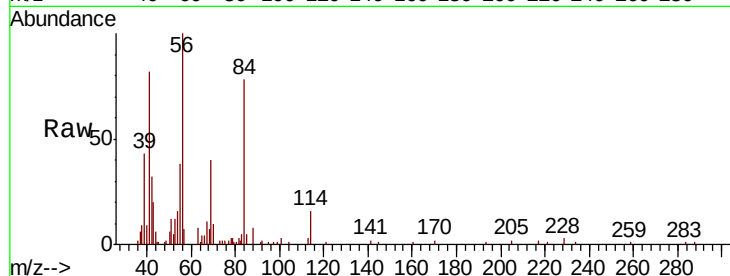




#30
Cyclohexane
Concen: 0.083 ppbv
RT: 7.15 min Scan# 1356
Delta R.T. -0.00 min
Lab File: VL036128.D
Acq: 9 Dec 2020 12:58

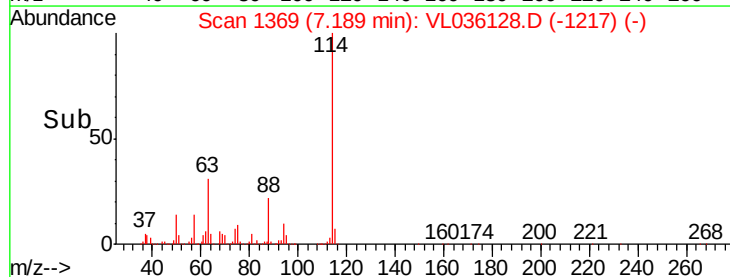
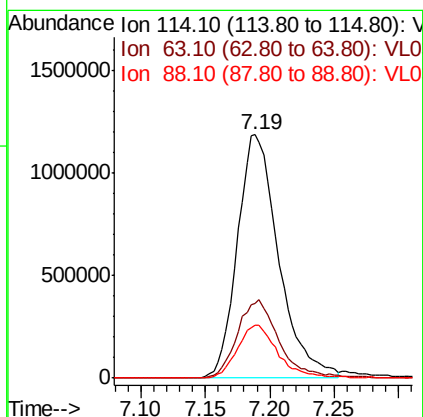
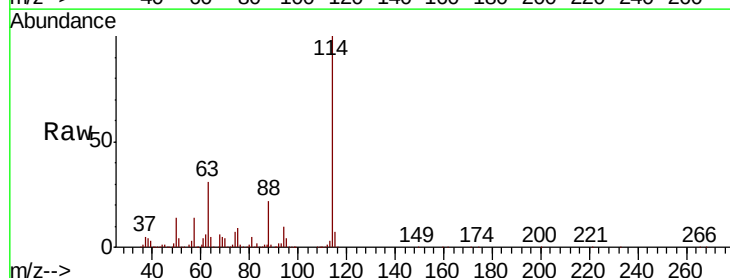
Instrument :
MSVOA_L
ClientSampleId :
SS-8B

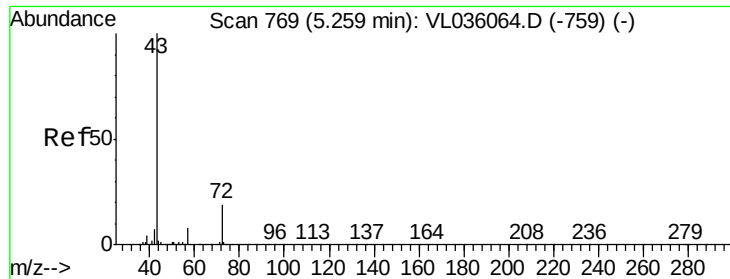
Tot Ion: 84 Resp: 8684
Ion Ratio Lower Upper
84 100
56 0.0 128.0 192.0#
41 0.0 81.3 121.9#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.19 min Scan# 1369
Delta R.T. -0.01 min
Lab File: VL036128.D
Acq: 9 Dec 2020 12:58

Tgt Ion:114 Resp: 2648647
Ion Ratio Lower Upper
114 100
63 32.5 23.6 35.4
88 21.8 15.8 23.6

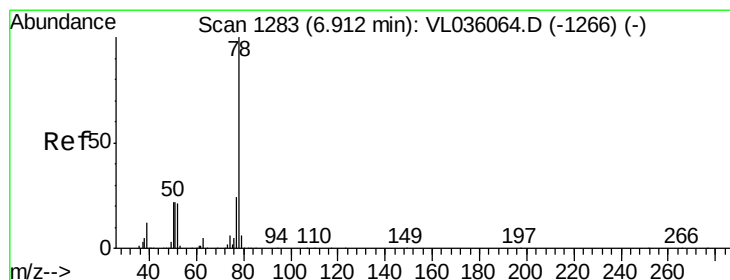
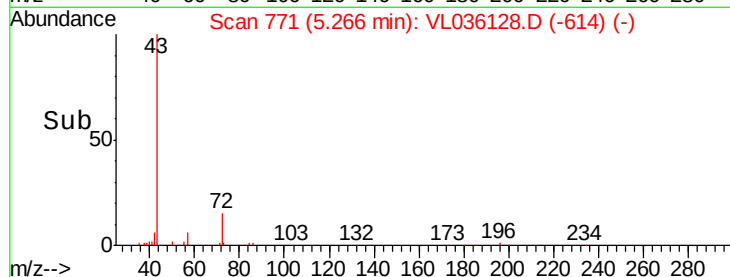
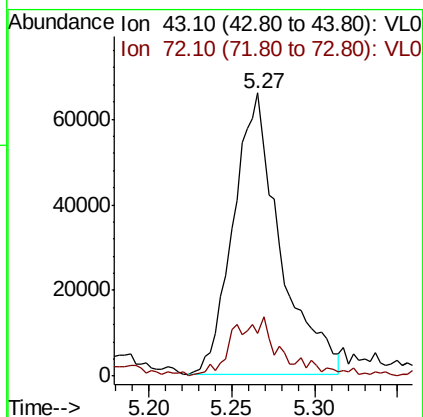
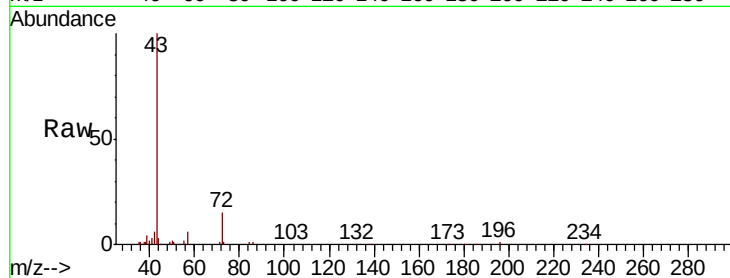




#34
2-Butanone
Concen: 0.732 ppbv
RT: 5.27 min Scan# 771
Delta R.T. 0.01 min
Lab File: VL036128.D
Acq: 9 Dec 2020 12:58

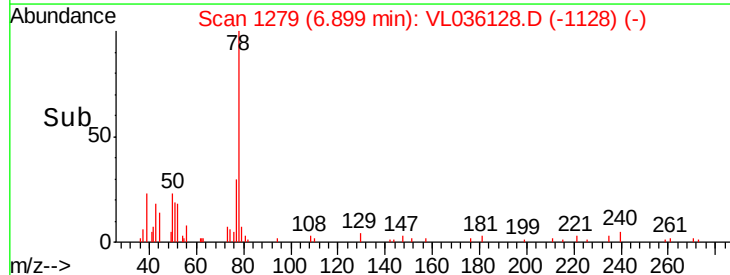
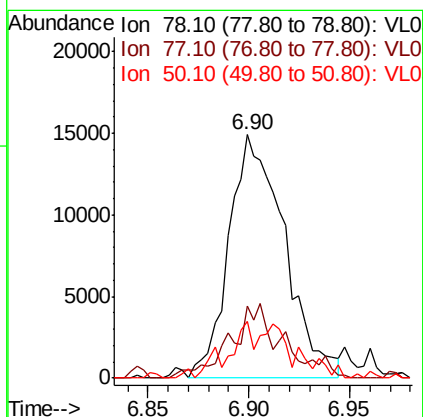
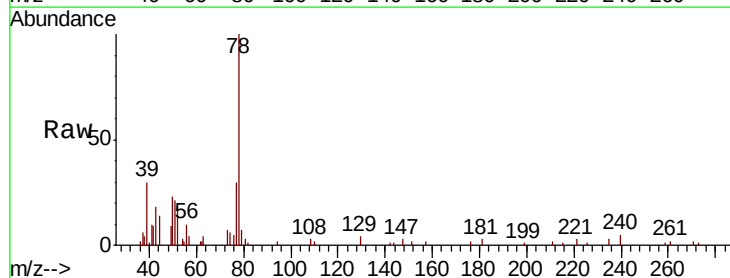
Instrument :
MSVOA_L
ClientSampleId :
SS-8B

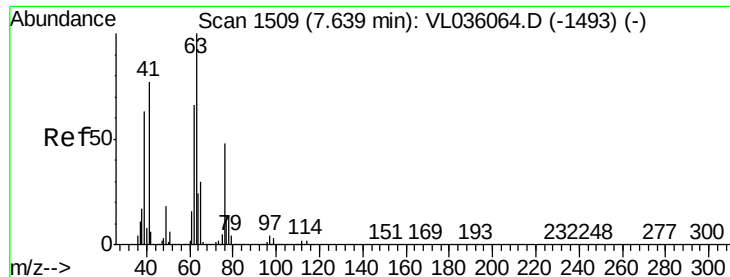
Tot Ion: 43 Resp: 128619
Ion Ratio Lower Upper
43 100
72 21.9 16.5 24.7



#36
Benzene
Concen: 0.128 ppbv
RT: 6.90 min Scan# 1279
Delta R.T. -0.01 min
Lab File: VL036128.D
Acq: 9 Dec 2020 12:58

Tgt Ion: 78 Resp: 28695
Ion Ratio Lower Upper
78 100
77 28.5 19.4 29.2
50 19.3 17.8 26.8





#39

1,2-Dichloropropane

Concen: 9.411 ppbv

RT: 7.19 min Scan# 1370

Delta R.T. -0.45 min

Lab File: VL036128.D

Acq: 9 Dec 2020 12:58

Instrument :

MSVOA_L

ClientSampleId :

SS-8B

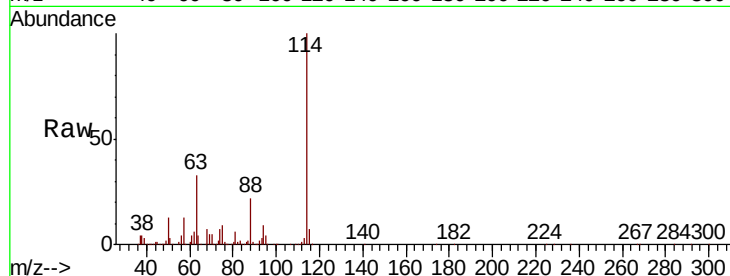
Tot Ion: 63 Resp: 834222

Ion Ratio Lower Upper

63 100

41 0.0 61.9 92.9#

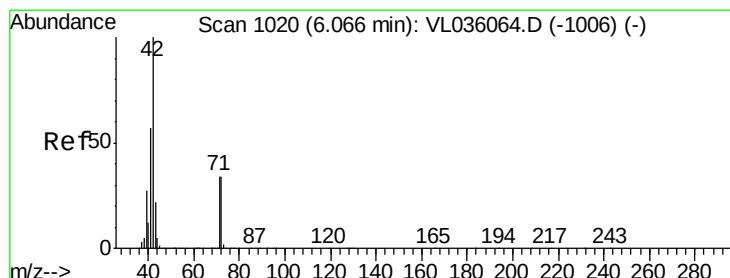
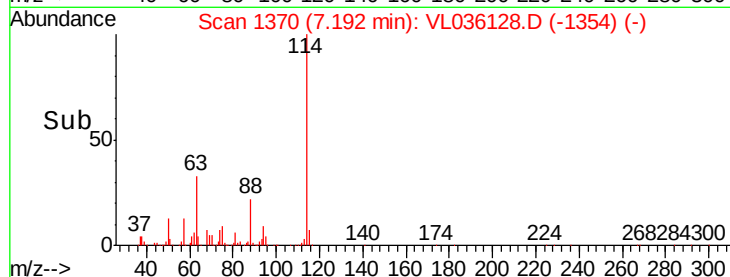
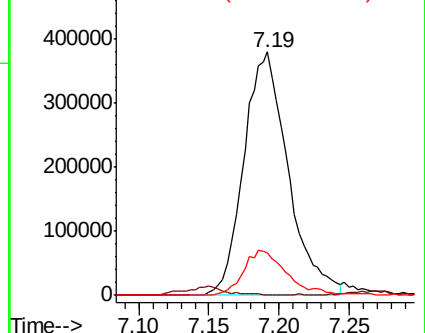
62 17.2 52.5 78.7#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#41

Tetrahydrofuran

Concen: 0.164 ppbv

RT: 6.08 min Scan# 1024

Delta R.T. 0.01 min

Lab File: VL036128.D

Acq: 9 Dec 2020 12:58

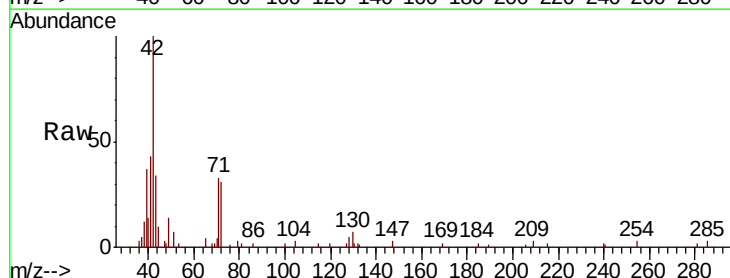
Tgt Ion: 42 Resp: 17093

Ion Ratio Lower Upper

42 100

72 50.9 28.3 42.5#

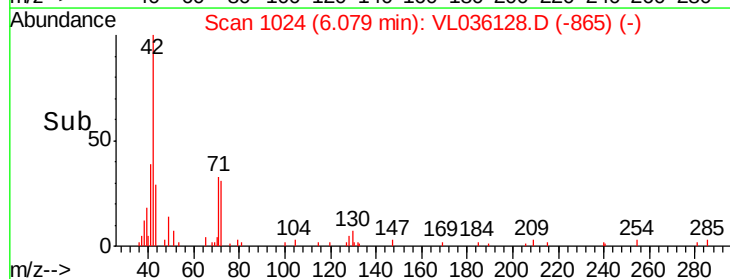
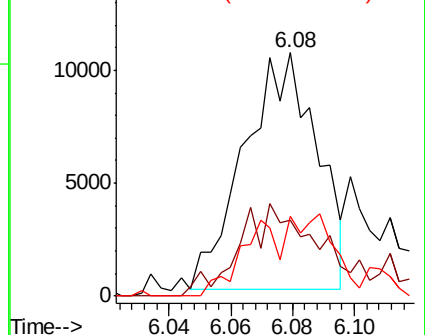
71 43.5 27.3 40.9#

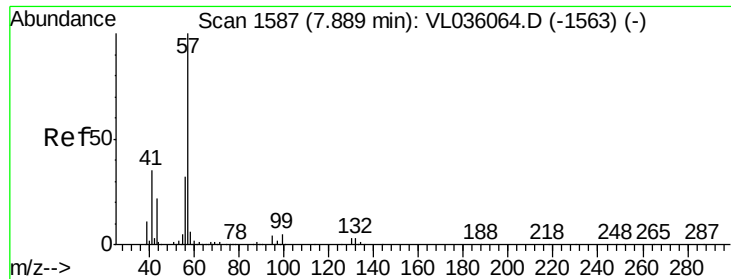


Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

Ion 71.10 (70.80 to 71.80): VL0





#44

2,2,4-Trimethylpentane

Concen: 0.036 ppbv

RT: 7.87 min Scan# 1582

Delta R.T. -0.02 min

Lab File: VL036128.D

Acq: 9 Dec 2020 12:58

Instrument :

MSVOA_L

ClientSampleId :

SS-8B

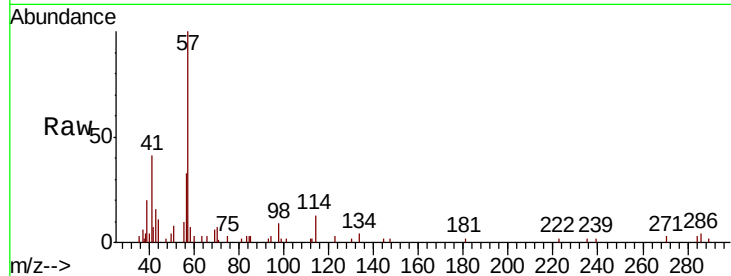
Tot Ion: 57 Resp: 14617

Ion Ratio Lower Upper

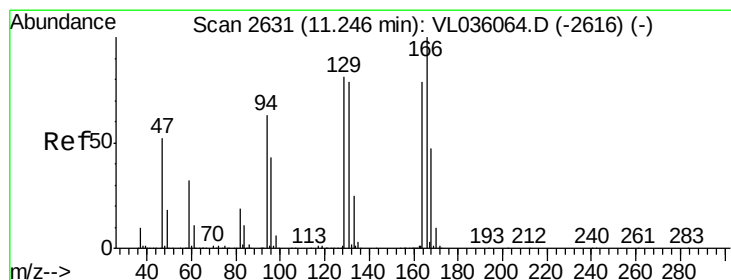
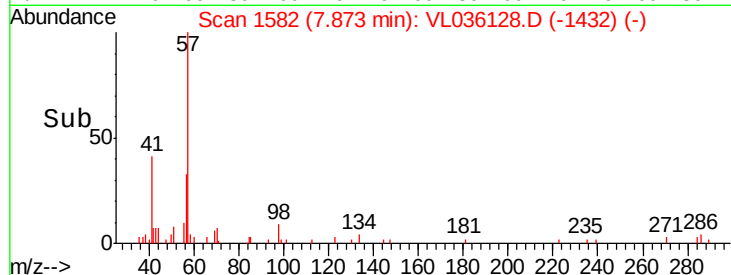
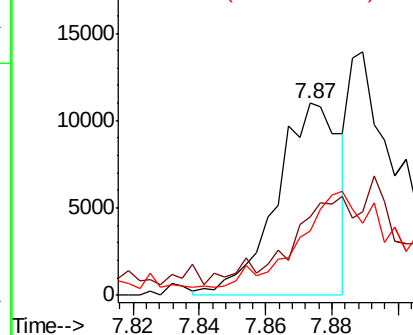
57 100

41 0.0 28.9 43.3#

56 0.0 25.3 37.9#



Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 56.10 (55.80 to 56.80): VL0



#52

Tetrachloroethene

Concen: 0.081 ppbv

RT: 11.24 min Scan# 2630

Delta R.T. -0.00 min

Lab File: VL036128.D

Acq: 9 Dec 2020 12:58

Tgt Ion: 164 Resp: 6608

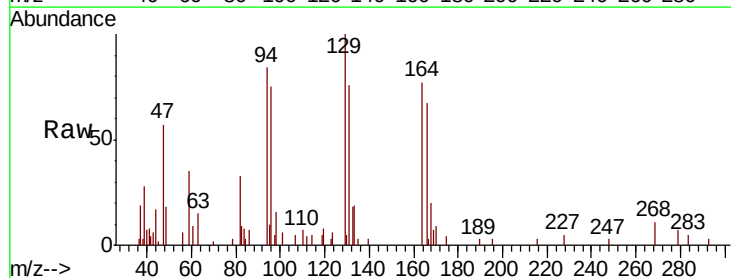
Ion Ratio Lower Upper

164 100

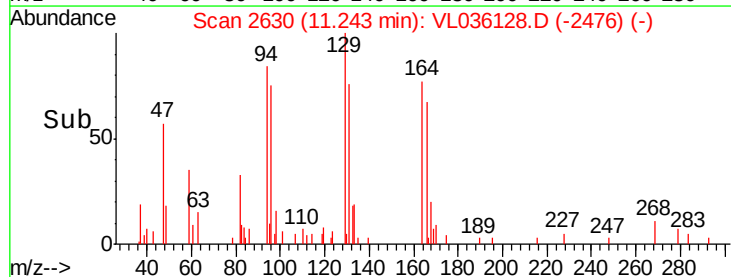
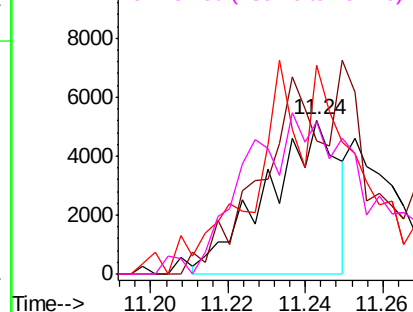
166 76.2 101.9 152.9#

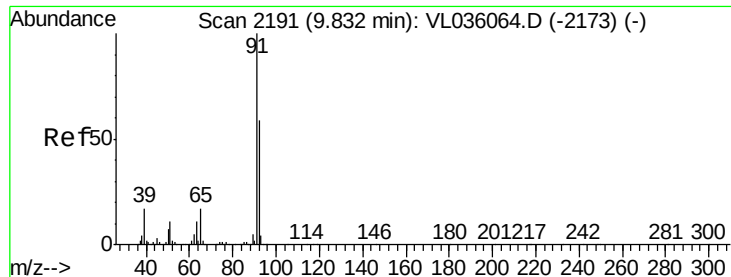
129 130.8 82.1 123.1#

131 104.2 80.8 121.2



Abundance Ion 163.90 (163.60 to 164.60): V
Ion 165.90 (165.60 to 166.60): V
Ion 129.00 (128.70 to 129.70): V
Ion 131.00 (130.70 to 131.70): V





#53

Toluene

Concen: 0.461 ppbv

RT: 9.82 min Scan# 2188

Delta R.T. -0.01 min

Lab File: VL036128.D

Acq: 9 Dec 2020 12:58

Instrument :

MSVOA_L

ClientSampleId :

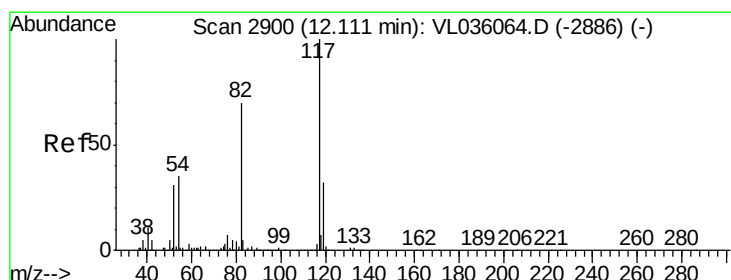
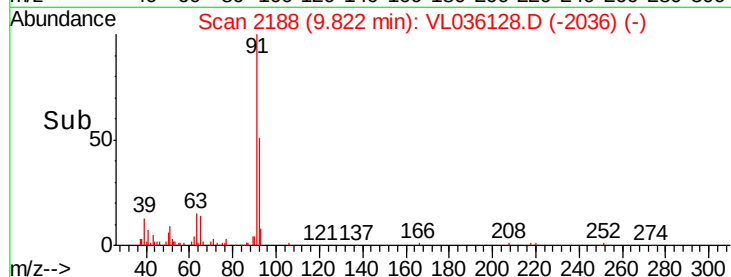
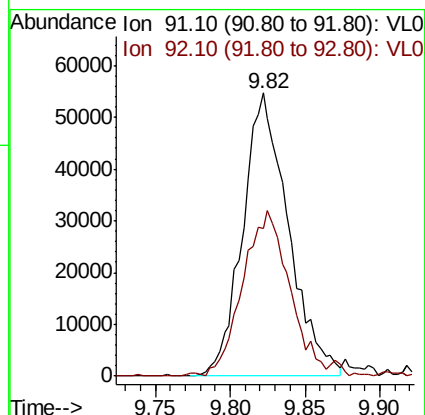
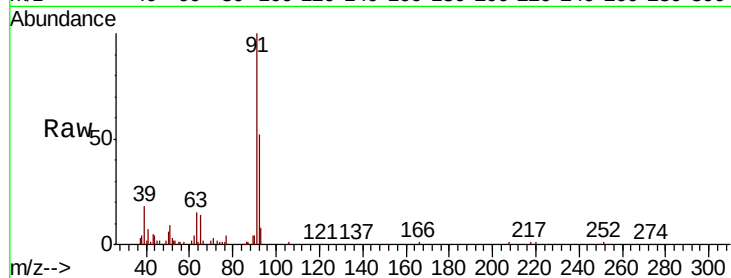
SS-8B

Tot Ion: 91 Resp: 116079

Ion Ratio Lower Upper

91 100

92 61.4 48.2 72.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2897

Delta R.T. -0.01 min

Lab File: VL036128.D

Acq: 9 Dec 2020 12:58

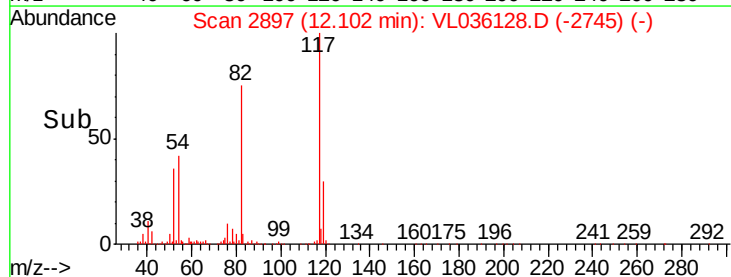
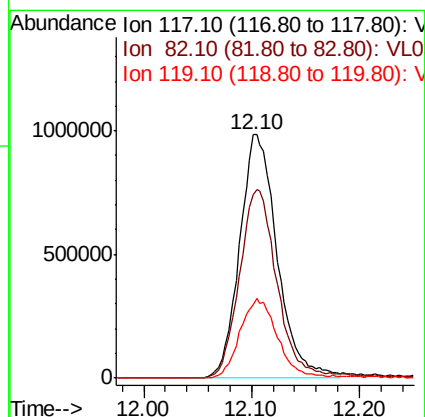
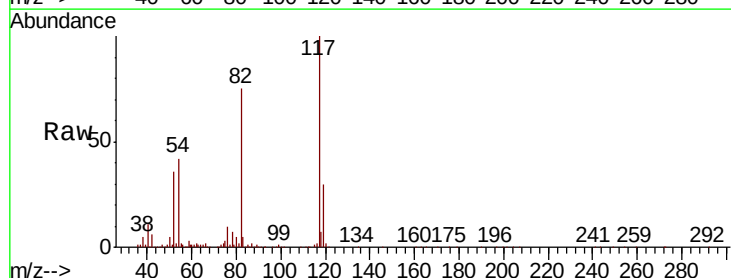
Tgt Ion: 117 Resp: 2385132

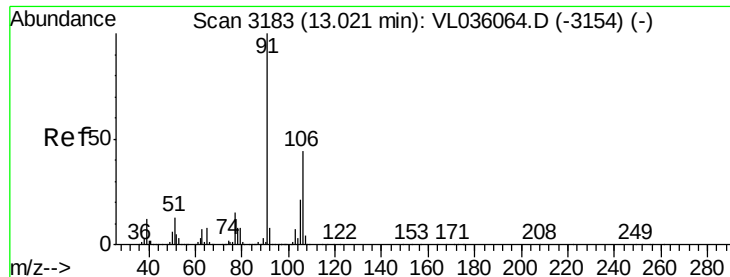
Ion Ratio Lower Upper

117 100

82 79.4 0.0 0.0#

119 33.0 0.0 0.0#

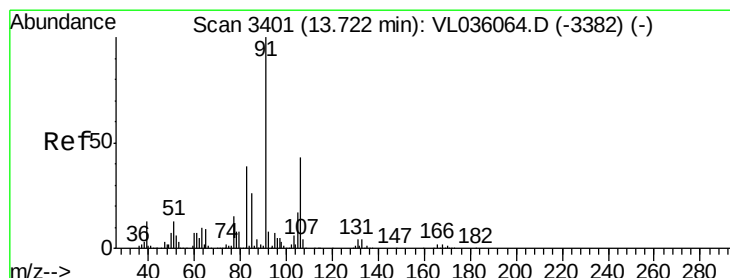
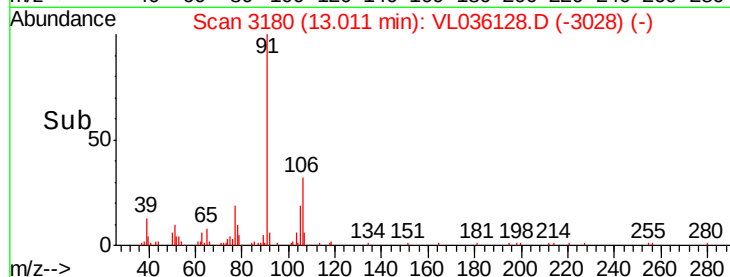
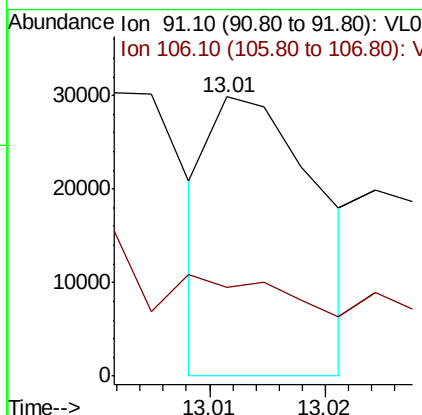
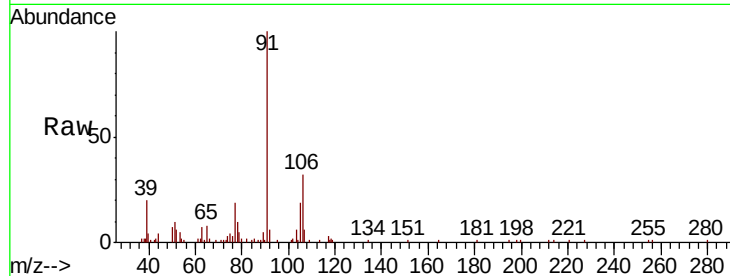




#59
m/p-Xylene
Concen: 0.069 ppbv
RT: 13.01 min Scan# 3180
Delta R.T. -0.01 min
Lab File: VL036128.D
Acq: 9 Dec 2020 12:58

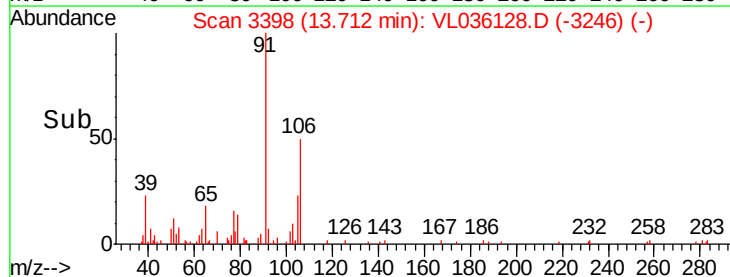
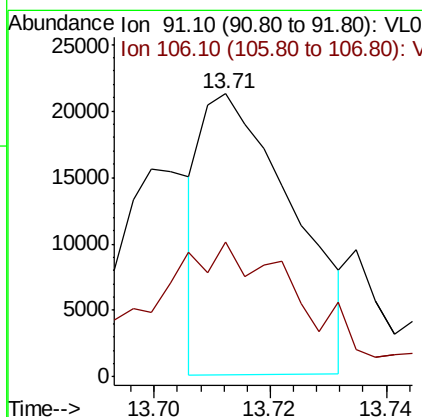
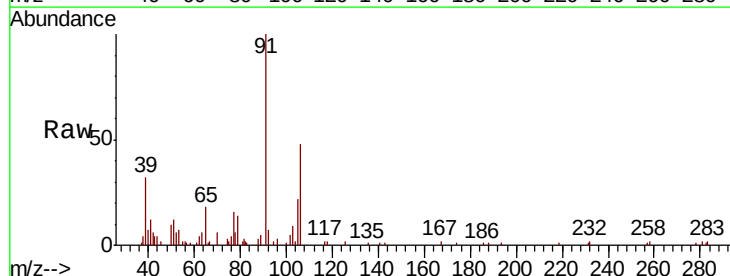
Instrument :
MSVOA_L
ClientSampleId :
SS-8B

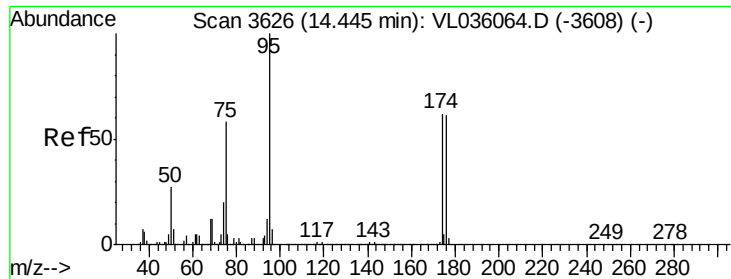
Tot Ion: 91 Resp: 19073
Ion Ratio Lower Upper
91 100
106 0.0 33.6 50.4#



#60
o-Xylene
Concen: 0.089 ppbv
RT: 13.71 min Scan# 3398
Delta R.T. -0.01 min
Lab File: VL036128.D
Acq: 9 Dec 2020 12:58

Tgt Ion: 91 Resp: 23203
Ion Ratio Lower Upper
91 100
106 93.5 21.6 64.6#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.776 ppbv

RT: 14.44 min Scan# 3623

Delta R.T. -0.01 min

Lab File: VL036128.D

Acq: 9 Dec 2020 12:58

Instrument :

MSVOA_L

ClientSampleId :

SS-8B

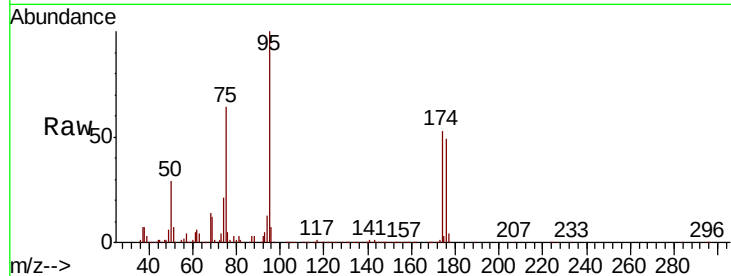
Tot Ion: 95 Resp: 2040772

Ion Ratio Lower Upper

95 100

174 56.0 50.7 76.1

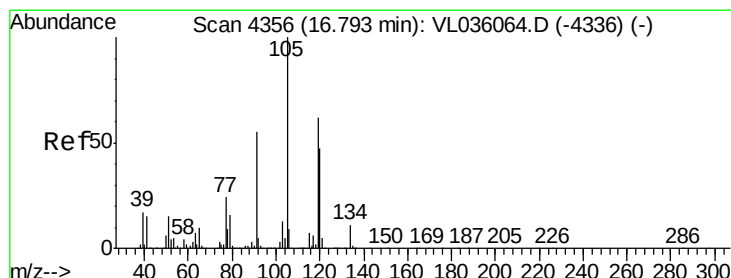
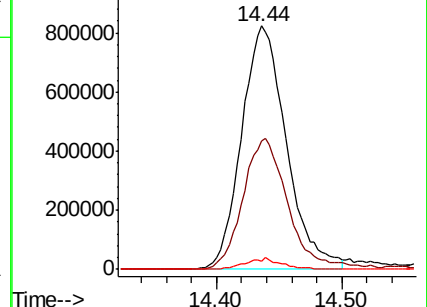
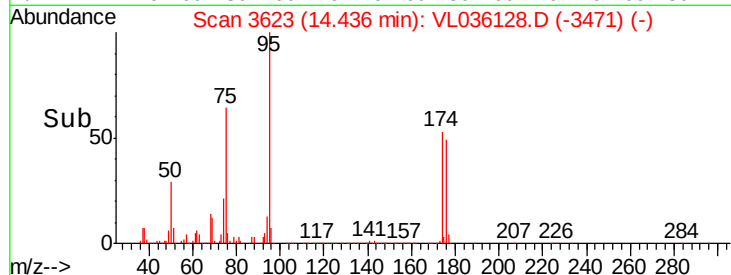
175 4.0 4.0 6.0#



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V



#74

1,2,4-Trimethylbenzene

Concen: 0.074 ppbv

RT: 16.78 min Scan# 4353

Delta R.T. -0.01 min

Lab File: VL036128.D

Acq: 9 Dec 2020 12:58

Tgt Ion:105 Resp: 19909

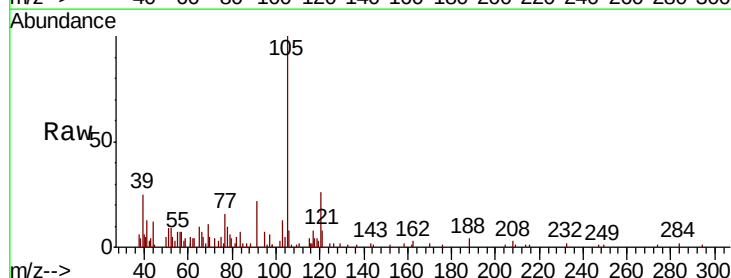
Ion Ratio Lower Upper

105 100

120 19.8 37.4 56.0#

91 17.9 45.6 68.4#

77 9.0 19.4 29.2#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

